

AMENDMENTS TO THE CLAIMS

Claims 1 to 22 (Cancelled)

23. (New) A method for producing a new brake shoe for use in a drum-in-hat disc brake assembly to increase the green static coefficient of friction between the new brake shoe and a cylindrical braking surface of a rotor of the drum-in-hat disc brake assembly before any burnishing or other contact/wear of the brake shoe and the braking surface of the rotor has occurred, the method comprising the steps of:

- (a) providing a new brake shoe including a friction lining having an outer surface having surface irregularities;
- (b) applying a liquid binder material to at least a portion of the outer surface of the friction lining of the brake shoe; and
- (c) applying an abrasive particle coating material to at least a portion of the outer surface of the friction lining of the brake shoe to at least partially fill in the surface irregularities thereof and thereby increase a contact area between the outer surface of the friction lining and the cylindrical braking surface of the rotor thereby increasing the green static coefficient of friction between the new brake shoe and braking surface of the rotor before any burnishing or other contact/wear of the brake shoe and the braking surface of the rotor has occurred.

24. (New) The method of Claim 23 wherein step (b) is performed prior to step (c).

25. (New) The method of Claim 23 wherein step (b) and step (c) are performed simultaneously by mixing together the liquid binder and the abrasive particle coating material to form a slurry or paste mixture.

26. (New) The method of Claim 25 wherein the mixture is applied by a process selected from the group consisting of spraying, dipping, blotting, brushing, ink-padding and rolling.

27. (New) The method of Claim 23 wherein the liquid binder is selected from the group consisting of a liquid phenolic resin and a silicate binder.

28. (New) The method of Claim 27 wherein water is added to the liquid binder.

29. (New) The method of Claim 23 wherein the abrasive particle coating material is selected from the group consisting of iron oxide powder (Fe_2O_3); aluminum oxide powder (Al_2O_3); zircon powder; and calcium oxide powder (CaCO_3).

30. (New) The method of Claim 23 wherein the liquid binder is a silicate binder and the abrasive particle coating material is iron oxide powder.

31. (New) The method of Claim 30 wherein a concentration ratio by weight of iron oxide to silicate is in the range from about 8 to 1 to about 4 to 1.

32. (New) The method of Claim 23 wherein abrasive particle coating material is applied to form a layer having a generally uniform thickness in the range from about 0.0001 to about 0.01 inches.

33. (New) A new brake shoe produced according to the method of Claim 23.

34. (New) A drum-in-hat disc brake assembly including a new brake shoe produced according to the method of Claim 23.

35. (New) A method for producing a new brake shoe for use in a drum-in-hat disc brake assembly to increase the green static coefficient of friction between the new brake shoe and a cylindrical braking surface of a rotor of the drum-in-hat disc brake assembly before any burnishing or other contact/wear of the brake shoe and the braking surface of the rotor has occurred, the method comprising the steps of:

- (a) providing a new brake shoe including a friction lining having an outer surface having surface irregularities;
- (b) applying an inorganic liquid binder material to at least a portion of the outer surface of the friction lining of the brake shoe; and
- (c) applying an abrasive particle coating material to at least a portion of the outer surface of the friction lining of the brake shoe to at least partially fill in the surface irregularities thereof and thereby increase a contact area between the outer surface of the friction lining and the cylindrical braking surface of the rotor thereby increasing the green static coefficient of friction between the new brake shoe and braking surface of the rotor before any burnishing or other contact/wear of the brake shoe and the braking surface of the rotor has occurred;

wherein the inorganic liquid binder material is a silicate binder and the abrasive particle coating material is selected from the group consisting of iron oxide powder (Fe_2O_3); aluminum oxide powder (Al_2O_3); zircon powder; and calcium oxide powder (CaCO_3).

36. (New) The method of Claim 35 wherein step (b) is performed prior to step (c).

37. (New) The method of Claim 35 wherein step (b) and step (c) are performed simultaneously by mixing together the inorganic liquid binder and the abrasive particle coating material to form a slurry or paste mixture.

38. (New) The method of Claim 37 wherein the mixture is applied by a process selected from the group consisting of spraying, dipping, blotting, brushing, ink-padding and rolling.

39. (New) The method of Claim 35 wherein water is added to the inorganic liquid binder.

40. (New) The method of Claim 35 wherein the abrasive particle coating material is iron oxide powder.

41. (New) The method of Claim 40 wherein a concentration ratio by weight of iron oxide to silicate is in the range from about 8 to 1 to about 4 to 1.

42. (New) The method of Claim 35 wherein abrasive particle coating material is applied to form a layer having a generally uniform thickness in the range from about 0.0001 to about 0.01 inches.

43. (New) A new brake shoe produced according to the method of Claim 35.

44. (New) A drum-in-hat disc brake assembly including a new brake shoe produced according to the method of Claim 35.

45. (New) A new brake shoe for use in a drum-in-hat disc brake assembly to increase the green static coefficient of friction between the new brake shoe and a cylindrical braking surface of a rotor of the drum-in-hat disc brake assembly before any burnishing or other contact/wear of the brake shoe and the braking surface of the rotor has occurred, the new brake shoe comprising:

a new brake shoe including a friction lining having an outer surface having surface irregularities;

a liquid binder material applied to at least a portion of the outer surface of the friction lining of the brake shoe; and

an abrasive particle coating material applied to at least the portion of the outer surface of the friction lining of the brake shoe to at least partially fill in the surface irregularities thereof and thereby increase a contact area between the outer surface of the friction lining and the cylindrical braking surface of the rotor thereby increasing the green static coefficient of friction between the new brake shoe and braking surface of the rotor before any burnishing or other contact/wear of the brake shoe and the braking surface of the rotor has occurred.

46. (New) The new brake shoe of Claim 45 wherein the liquid binder is selected from the group consisting of a liquid phenolic resin and a silicate binder.

47. (New) The new brake shoe of Claim 46 wherein water is added to the liquid binder.

48. (New) The new brake shoe of Claim 45 wherein the abrasive particle coating material is selected from the group consisting of iron oxide powder (Fe_2O_3); aluminum oxide powder (Al_2O_3); zircon powder; and calcium oxide powder (CaCO_3).

49. (New) The new brake shoe of Claim 45 wherein the liquid binder is a silicate binder and the abrasive particle coating material is iron oxide powder.

50. (New) The new brake shoe of Claim 45 wherein a concentration ratio by weight of iron oxide to silicate is in the range from about 8 to 1 to about 4 to 1.

51. (New) The new brake shoe of Claim 45 wherein abrasive particle coating material is applied to form a layer having a generally uniform thickness in the range from about 0.0001 to about 0.01 inches.